

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Simon COTE

Group Art Unit:

Application No.: 10/567,430

Examiner:

Filing Date: February 6, 2006

Confirmation No.:

Title: NEW POLYETHER BASED MONOMERS AND HIGHLY CROSS-LINKED AMPHIPHILE RESINS

**FIRST  
INFORMATION DISCLOSURE STATEMENT  
TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is a FIRST Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

- ☒ No additional fee for submission of an IDS is required.
- ☐ The fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ Charge \_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☐ A check in the amount of \_\_\_\_\_ is enclosed for the fee due.
- ☐ Charge \_\_\_\_\_ to credit card. Form PTO-2038 is attached.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BUCHANAN INGERSOLL PC

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620

By



William C. Rowland

Registration No. 30,888

Date: April 25, 2006

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LINKED AMPHIPHILE RESINS	)	

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Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.


The listed documents were cited in the International Search Report and Written Opinion of the International Searching Authority in the corresponding PCT application, and/or cited in the specification.

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date April 25, 2006

By:   
William C. Rowland  
Registration No. 30,888

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Alexandria, Virginia 22313-1404  
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<b>FIRST INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/567,430	
			Filing Date	February 6, 2006	
			First Named Inventor	Simon COTE	
Examiner Name					
Sheet	1	of	3	Attorney Docket Number	1032256-000033

U.S. PATENT DOCUMENTS				
Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	5,910,554	A	Kempe et al.	06-08-1999
	4,908,405		Bayer et al.	03-13-1990
	5,466,758	A	Yoon-Sik et al.	11-14-1995

FOREIGN PATENT DOCUMENTS										
Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS					
					Translation	Partial Translation	International Search Report	Written Opinion	Abstract	Cited in Specification With English
	*1 288 272	A1	Europe	03-05-2003			X	X		
	*0 692 501	A1	Europe	01-17-1996			X	X		
	*02/40559	A2	WO	05-23-2002			X	X		X
	*03/102040	A1	WO	12-11-2003			X			
	*99/64484	A1	WO	12-16-1999			X	X		
	*0 633 912	B1	Europe	01-18-1995			X	X		
	*2004/014984	A1	WO	02-19-2004			X			
	*93/16118	A1	WO	08-19-1993						X
	*97/27226	A2	WO	07-31-1997						X
	*00/18823	A2	WO	04-06-2000						X

NON-PATENT LITERATURE DOCUMENTS	
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	*MARIA KEMPE et al., "CLEAR: A NOVEL FAMILY OF HIGHLY CROSS-LINKED POLYMERIC SUPPORTS FOR SOLID-PHASE PEPTIDE SYNTHESIS", J. Am. Chem. Soc., 1996, vol. 118, pages 7083-7093, American Chemical Society (cited in specification)
	*MORTEN MELDAL et al., "PEGA: A FLOW STABLE POLYETHYLENE GLYCOL DIMETHYL ACRYLAMIDE COPOLYMER FOR SOLID PHASE SYNTHESIS", Tetrahedron Letters, 1992, vol. 33, no. 21, pages 3077-3080 (cited in specification)
	*ERNST BAYER, "TOWARDS THE CHEMICAL SYNTHESIS OF PROTEINS", Angewandte Chemie, International Edition in English, February 1991, vol. 30, no. 2, pages 113-219 (cited in specification)
	*OWEN W. GOODING et al., "ON THE DEVELOPMENT OF NEW POLY(STYRENE-OXYETHYLENE) GRAFT COPOLYMER RESIN SUPPORTS FOR SOLID-PHASE ORGANIC SYNTHESIS", Journal of Combinatorial Chemistry, 1999, vol. 1, no. 1, pages 113-122, American Chemical Society (cited in specification)

Copy attached.

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.  
Form Letters I

<b>FIRST INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
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Sheet	2	of	3	Attorney Docket Number	1032256-000033

## NON-PATENT LITERATURE DOCUMENTS

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	*MANAT RENIL et al., "POEPOP AND POEPS: INERT POYETHYLENE GLYCOL CROSSLINKED POLYMERIC SUPPORTS FOR SOLID SYNTHESIS", Tetrahedron Letters, 1996, vol. 37, no. 34, pages 6185-6188, Elsevier Science Ltd., Great Britain (cited in specification)
	*JÖRG RADEMANN, et al., "SPOCC: A RESIN FOR SOLID-PHASE ORGANIC CHEMISTRY AND ENZYMATIC REACTIONS ON SOLID PHASE", J. Am. Chem. Soc., 1999, vol. 121, no. 23, pages 5459-5466, American Chemical Society (cited in specification)
	*MORTEN GRØTLI et al., "SURFACTANT MEDIATED CATIONIC AND ANIONIC SUSPENSION POLYMERIZATION OF PEG-BASED RESINS IN SILICON OIL: BEADED SPOCC 1500 AND POEPOP 1500", Journal of Combinatorial Chemistry, 2001, vol. 3, no. 1, pages 28-33, American Chemical Society (cited in specification)
	*CHRISTIAN W. TORNØE et al., "EXPO <sub>3000</sub> - A NEW EXPANDABLE POLYMER FOR SYNTHESIS AND ENZYMATIC ASSAYS", Tetrahedron Letters, 2002, vol. 43, pages 6409-6411, Elsevier Science Ltd. (cited in specification)
	*YOSHIYUKI MIWA et al., "NEW TYPE POLYMER ELECTROLYTES BASED ON BIS-OXETANE MONOMER WITH OLIGO(ETHYLENE OXIDE) UNITS", Polymer Journal, 2001, vol. 33, no. 12, pages 927-933 (cited in specification)
	*DÖRWALD, "CHAPTER 2: SUPPORTS FOR SOLID-PHASE ORGANIC SYNTHESIS", 2000, pages 13-32, Wiley-VCH Verlag Weinheim, Germany (cited in specification)
	*MORTEN MELDAL, "PROPERTIES OF SOLID SUPPORTS", Methods in Enzymology, 1997, vol. 289, pages 83-104, Academic Press, NY (cited in specification)
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	*BUNICHIRO YAMADA et al., "ROLE OF BULKY $\alpha$ -SUBSTITUENT IN FREE-RADICAL POLYMERIZATION AND COPOLYMERIZATION OF METHYL $\alpha$ -(ALKOXYMETHYL) ACRYLATES, Makromol. Chem., 1991, vol. 192, pages 2713-2722, Hüthig & Wepf Verlag (cited in specification)
	*BUNICHIRO YAMADA et al., "POLYMERIZATION OF 2-(SUBSTITUTED METHYL)ACRYLATE BEARING $\omega$ -METHOXYOLIGOETHYLENEOXY GROUPS AS SIDE CHAINS TO NEW LOW $T_g$ POLYMER", Journal of Polymer Science: Part A: Polymer Chemistry, 1993, vol. 31, pages 3433-3438, John Wiley & Sons, Inc. (cited in specification)
	*TAKASHI TSUDA et al., "NEW DICYANO-CONTAINING CYCLOPOLYMERS HAVING HIGH STEREOREGULARITY DERIVED FROM DIMETHACRYLMALONONITRILE", Macromolecules, 1993, vol. 26, pages 6359-6363, American Chemical Society (cited in specification)

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	*CHETAN P. JARIWALA et al., "SYNTHESES, POLYMERIZATION, AND CHARACTERIZATION OF NOVEL SEMIFLUORINATED METHACRYLATES, INCLUDING NOVEL LIQUID CRYSTALLINE MATERIALS", Macromolecules, 1993, vol. 26, pages 5129-5136, American Chemical Society (cited in specification)
	*ANNIE PHILIPPON et al., "MACROCYCLIC ETHERS BY FREE RADICAL CYCLIZATIONS", Synthetic Communications, 1997, vol. 27, no. 15, pages 2651-2682, Marcel Dekker, Inc. (cited in specification)
	*BUNICHIRO YAMADA et al., "RADICAL POLYMERIZATION, CO-POLYMERIZATION, AND CHAIN TRANSFER OF $\alpha$ -SUBSTITUTED ACRYLIC ESTERS", Prog. Polym. Sci., Pergamon, 1994, vol. 19, pages 1089-1131, Elsevier Science Ltd., Great Britain (cited in specification)
	*KOICHI ITO, et al., "POLY(ETHYLENE OXIDE) MACROMONOMERS. 10. CHARACTERIZATION AND SOLUTION PROPERTIES OF THE REGULAR COMB POLYMERS WITH POLYSTYRENE MAIN CHAINS AND POLY(ETHYLENE OXIDE) SIDE CHAINS", Macromolecules, 1992, vol. 25, pages 1534-1538, American Chemical Society (cited in specification)
	*RYOKO KITA et al., "HYDROPHILIC POLYMER SUPPORTS FOR SOLID-PHASE SYNTHESIS: PREPARATION OF POLY(ETHYLENE GLYCOL) METHACRYLATE POLYMER BEADS USING "CLASSICAL" SUSPENSION POLYMERIZATION IN AQUEOUS MEDIUM AND THEIR APPLICATION IN THE SOLID-PHASE SYNTHESIS OF HYDANTOINS", Journal of Combinatorial Chemistry, 2001, vol. 3, no. 6, pages 564-571, American Chemical Society (cited in specification)
	*BYEONG-DEOG PARK et al., "CONVENIENT METHOD FOR PREPARING POLYSTYRENE HAVING $\beta$ -HYDROXY GROUP: ITS APPLICATION TO THE SYNTHESIS OF POLYETHYLENE GLYCOL-GRAFTED POLYSTYRENE RESIN", Tetrahedron Letters, 1997, vol. 38, no. 4, pages 591-594, Elsevier Science Ltd., Great Britain (cited in specification)
	*International Search Report dated December 24, 2004.
	*Written Opinion of the International Searching Authority dated December 24, 2004.

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Form Letters1